

Application No.: 09/941947  
Docket No.: CL1903USNA

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**REMARKS**

Claims 1-50 are in the case.

Claims 5, 9, 11, 14, 16, 18, 20, 22, 24, 26, 28-34, 36 and 41-47 are canceled.

Claims 8, 39 and 48 and have been amended to more clearly define Applicants' invention.

In a telephone conversation with the Examiner, it was indicated that the claims have been made subject to a requirement to restrict. While the precise grouping of the claims was not determined Applicants have agreed to an election of species, consisting of: *Methylomonas* as a host cell, Astaxanthin as a carotenoid substrate, and a set of enzymes required for the production of Astaxanthin consisting of SEQ ID NO:26 encoding geranylgeranyl pyrophosphate (GGPP) synthase; SEQ ID NO:34, encoding phytoene synthase; SEQ ID NO:32 encoding phytoene desaturase; SEQ ID NO:30 encoding lycopene cyclase; SEQ ID NO:36 encoding  $\beta$ -carotene hydroxylase; and SEQ ID NO:38 encoding  $\beta$ -carotene ketolase.

Respectfully submitted,



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